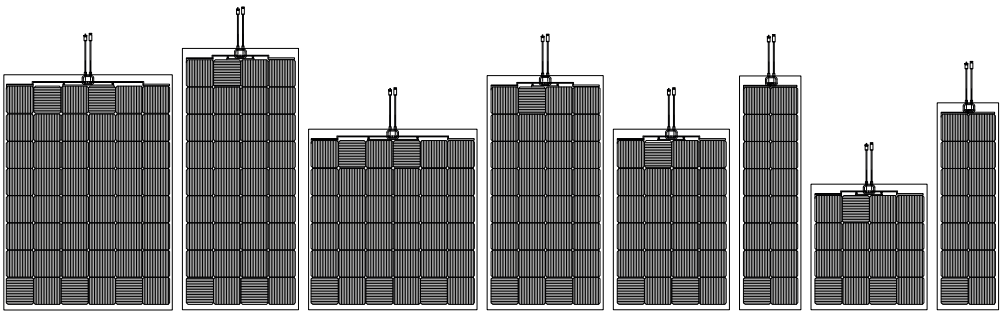
Aesthetics, reliability and price.

SX series

MADE IN ITALY



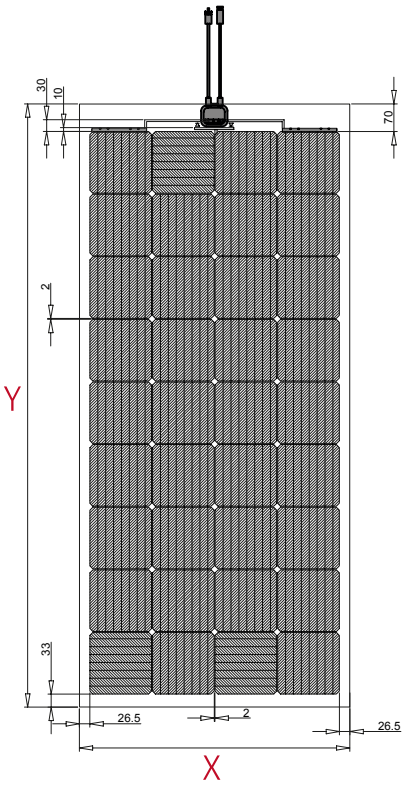
In the SX series the monocrystalline solar cells are electrically connected using ultra-thin copper wires that form a very fine mesh on the cell surface, resulting in thousands of contact connected points. This alternative to the standard bus-bar method allows a higher module power and increases the energy yield. A technology optimally suited to fexible modules, thanks to its intrinsic insensitivity to micro-cracks, that are the most common cause of energy loss in solar modules.

Another advantage is a reduced sensitiveness to shading, pushed to the extreme in the Guardian (G) models where several bypass diodes are inserted thanks to an innovative cell layout. The new connection technology, together with the use of high efficiency silicon cells, make SX panels especially powerful and reliable

Features

POSITIVE TOLERANCE

- ✓ High resistance to mechanical stresses thanks to the thin wires thick mesh on the cell surface
- ✓ Flexible and lightweight (2.2 kg/m^2)
- ✓ Completely waterproof and resistant to salt water
- ✓ Thin (less than 2 mm)
- ✓ 5 year warranty against manufacturing defects
- ✓ Positive power tolerance (0%, +5%)
- ✓ Integrated bypass diodes to minimise output losses associated with partial shading
- ✓ Up to nine bypass diodes in the Guardian models, to fight even better the effects of shadows
- ✓ Available with different front sheets, many fixing and electrical wiring options
- ✓ White, black or transparent back sheet
- ✓ Adaptable to any battery: from 5 to 48 volt, lead-acid or lithium
- ✓ Designed and manufactured in Italy



SOLBIANFLEX SX

SX series DAY4 inside

Day4Energy's laminated cell with patented Stay-powerful™ Technology, uniquely interconnects solar cells and collects the power they generate. This innovation is a direct replacement of the conventional, high temperature solar cell soldering process. Cells are connected using a matrix of electrically-efficient copper wires coated with a custom, low melting point alloy. This technology guarantees high efficiency in low light conditions and wires act as a "bridge" across any interruption: if a microcrack occurs, the electron flow continues.

Day4Energy™ cell

On the front of the cell electrically-efficient copper wires form a mesh that creates a very high number of connection points.

High efficiency also in low light.

The unique rear pattern offers an optimal contact ground and allows for complex geometries.

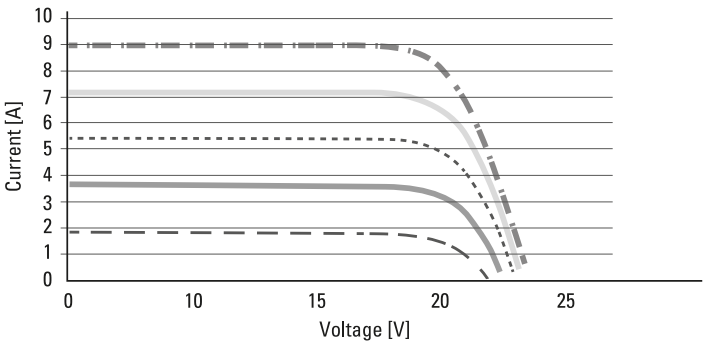
Broad customization capabilities and long-lasting electric contacts.

Datasheet

	SX 236	SX 176 L	SX 176 Q	SX 176 G	SX 158	SX 118	SX 118 G	SX 78 L	SX 78 Q	SX 68
Maximum power (0%, +5%) [W]	236	176	176	176	158	118	118	78	78	68
Length Y [mm]	1364	1523	1046	1075	1364	1046	754	1364	728	1205
Width X [mm]	994	683	994	994	683	683	1016	365	683	365
Thickness [mm]	2	2	2	2	2	2	2	2	2	2
Weight [kg]	3.00	2.40	2.40	2.40	2.10	1.70	1.80	1.20	1.20	1.10
Max power Voltage Vmp [V]	25.9	19.3	19.3	19.3	17.4	13.0	13.0	8.6	8.6	7.5
Max power Current Imp [A]	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
Open circuit voltage Voc [V]	32.0	24.0	24.0	24.0	21.3	16.0	16.0	10.7	10.7	9.3
Short circuit current Isc [A]	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
NOCT [°C]	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2	45 ± 2
Operating temperature [°C]	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85	-40/+85
Temp. coeff. Pmax [%/°C]	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
Temp. coeff. Voc [%/°C]	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32	-0.32
Temp. coeff. Isc [%/°C]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Columns x Rows (cells n°)	6x8 (48)	4x9 (36)	6x6 (36)	6x6 (36)	4x8 (32)	4x6 (24)	6x4 (24)	2x8 (16)	4x4 (16)	2x7 (14)
Maximum system voltage [V]	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Maximum reverse current [A]	12 A	12 A	12 A	12 A	12 A	12 A	12 A	12 A	12 A	12 A
Safety class	A	A	A	A	A	A	A	A	A	A

* Values at STC = Standard Test Conditions: (a) light Spectrum for an Air Mass of 1.5; (b) irradiance of 1000 W/m² with perpendicular incidence and (c) cell temperature of 25 °C. Measurements carried out according to the Standard IEC 61215 requirements.

Electrical Characteristics



Certifications

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